UNITED STATES PATENT AND TRADEMARK OFFICE

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10/646,182	08/21/2003	David Wayne Moore	SVL920030065US1	9082

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ART UNIT	PAPER NUMBER
2161	

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 July 2006*.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 July 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This action is issued in response to applicant's amendment filed July 16, 2006.

2.   Claims 1-30 are presented. No claims added and none cancelled.

3.   Claims 1-30 are pending.

4.   Applicant's arguments filed July 16, 2006, have been fully considered but they

are not persuasive.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   **Claims 1,11, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated**

by Circenis (US Patent No. 6,026,424) issued on February 15, 2000.

        Regarding Claims 1,11, and 21, Circenis discloses a method of facilitating

data flow between a synchronous process and an asynchronous process,

comprising:

        converting an input asynchronous data flow from the synchronous process

into a synchronous data flow (column 6, lines 31-33, Circenis)[1];

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[1] Examiner Notes: The act of converting corresponds to "switches" and the inputting of information, is executed by the client process (column 4, lines 16-22, Circenis). Also, "synchronous mode" corresponds

processing the synchronous data flow (column 6, lines 35-44, Circenis) by

means of a synchronous task (column 6, lines 33-35, Circenis);

converting the processed synchronous data flow into an output

asynchronous data flow (column 6, lines 50-56, Circenis)[2]; and

feeding the output asynchronous data flow to the asynchronous process

(column 6, lines 60-67, Circenis)[3].

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   **Claims 2-9,12-19, and 22-29 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Circenis (US Patent No. 6,026,424) issued on February 15,

2000, as applied to claims 1,11, and 21 above, in view of Cole (US Patent

Publication No. 20020091719) filed on January 9, 2001.

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to synchronous process, while the synchronous data flow, is represented by the steps that the process has to go through (column 6, lines 35-44, Circenis).

[2] Examiner Notes: The act of converting is represented by, the server contacting the client and informing the client that the task will "continue" asynchronously. Also, once the task has switched to asynchronous mode, it can only be characterized as an output data flow because the timer has stopped and the only way to complete the task is in the last mode represented which would be asynchronous mode. As such, after completion results are returned which corresponds to the output of the data flow (column 7, lines 5-10, Circenis).

[3] Examiner Notes: Feeding corresponds to "freeing", because both represent advancing information through a system.

Regarding Claims 2,12, and 22, Circenis discloses all of the claimed subject matter as stated above. However, Circenis does not explicitly disclose the use of a buffer queue for the input of the asynchronous data flow. On the other hand, Cole discloses the use of a buffer queue ([0040], lines 5-8, Cole) for the input of the asynchronous data flow. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Cole's buffer queue into the Circenis system for the input asynchronous data flow. A skilled artisan would have been motivated to combine the two references as stated by Cole in order to permit configurability for optimal memory space usage ([0039], lines 13-15, Cole). Circenis and Cole are analogous art because they are from the same field of endeavor of a system for executing tasks of varying results to avoid tying up the system. As a result, the buffer queues temporarily store data to help compensate for differences in the transfer rate of data. Also, data from a buffer is available more quickly than data from where the buffer retrieved it.

Regarding Claims 3,13, and 23, the combination of Circenis in view of Cole, disclose a method further comprising dequeuing a plurality of input buffers ([0041], lines 6-8, Cole) from the synchronous buffer queue ([0040], lines 5-8, Cole).

Regarding Claims 4,14, and 24, the combination of Circenis in view of Cole, disclose a method further comprising enqueuing the processed synchronous data flow on an asynchronous buffer queue ([0041], lines 4-6, Cole).

Regarding Claims 5,15, and 25, the combination of Circenis in view of Cole, disclose a method wherein processing the synchronous data flow comprises sorting the synchronous data flow ([0058], lines 11-16, Cole)[4].

Regarding Claims 6,16, and 26, the combination of Circenis in view of Cole, disclose a method further comprising enqueuing the sorted synchronous data flow to a plurality of output buffers ([0056], lines 5, Cole)[5].

Regarding Claims 7,17, and 27, the combination of Circenis in view of Cole, disclose a method further comprising synchronously filling the output buffers with the sorted synchronous data flow ([0046], lines 6-14, Cole)[6].

Regarding Claims 8,18, and 28, the combination of Circenis in view of Cole, disclose a method wherein the number of the output buffers is limited to a predetermined maximum value[7] ([0052], lines 2-7, Cole).

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[4] Examiner Notes: The action of sorting corresponds to "enumerated by a handle", which is an array index. Also, Fig.1, item 18 shows a sorting mechanism.
[5] Examiner Notes: Output corresponds to "returning".
[6] Examiner Notes: Filling corresponds to "Loading".

Regarding Claims 9,19, and 29, the combination of Circenis in view of

Cole, disclose a method further comprising saving the sorted synchronous data

flow in the output buffers at a record processor until the output buffers are

requested by the asynchronous process (column 6, lines 8-15, Circenis).

9.   Claims 10,20, and 30 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Circenis (US Patent No. 6,026,424) issued on February 15,

2000, in view of Rose (US Patent No. 6,519,595) filed on March 2, 1999.

Regarding Claims 10,20, and 30, Circenis discloses all of the claimed

subject matter as stated above. However, Circenis does not explicitly disclose a

method comprising saving the processed the synchronous data flow for an image

copy restore task. On the other hand, Rose discloses a method comprising

saving the processed the synchronous data flow for an image copy restore task[8]

(column 2, lines 30-35, Rose). It would have been obvious to one of ordinary skill

in the art at the time of the invention to incorporate Rose's teachings into the

Circenis system. A skilled artisan would have been motivated to do so in order to

make an exact reproduction of all or part of the essential data needed. As a

result, this ensures a user that a system failure will not conclude with a loss of

data.

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[7] Examiner Notes: The predetermined maximum value corresponds to "Queue-Full".

Response to Arguments

Applicant argues, Circenis does not disclose "a method of facilitating data flow

between a synchronous process and an asynchronous process". The applicant further

clarifies the distinction between the terms "data flow" and "task".

Examiner respectfully disagrees. In response to applicant's arguments, the

recitation "a method of facilitating data flow between a synchronous process and an

asynchronous process", has not been given patentable weight because the recitation

occurs in the preamble. A preamble is generally not accorded any patentable weight

where it merely recites the purpose of a process or the intended use of a structure, and

where the body of the claim does not depend on the preamble for completeness but,

instead, the process steps or structural limitations are able to stand alone. See *In re*

Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150,

152, 88 USPQ 478, 481 (CCPA 1951). Also, to give further clarification of the invention

applicant further explains the difference between a "data flow" and a "task". However, it

is noted that the features upon which applicant relies (i.e., "data flow occurring between

two known sets of code, but with different handshake protocols" and "there are two

types of tasks, synchronous and asynchronous, present invention only concerned with

the synchronous tasks") are not recited in the rejected claim(s). Although the claims are

interpreted in light of the specification, limitations from the specification are not read into

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[8] Examiner Notes: The image copy restore task corresponds to a "battery backup SRAM".

the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Therefore, the broadest reasonable interpretation of the claim language is given and if

specific terms have specific/special meanings, incorporation into the claim language

would be desired.

Applicant argues, Circenis does not disclose "converting an input asynchronous

data flow from the synchronous process into a synchronous data flow", because

"Circenis switches the task but not the data flow".

Examiner respectfully disagrees. As stated in the action above, Circenis

discloses at column 6, lines 31-33, wherein a task begins in synchronous mode and

then switches to asynchronous mode when it is identified as a long duration task.

Examiner believes the data flow has been switched because the system was originally

being performed synchronously (i.e. all at the same time), but after a certain duration in

time the flow of the data is switched to asynchronously (i.e. not at the same time – time

delay). Therefore, by switching between different modes the flow of the data is

converted.

Applicant argues, Circenis does not teach "converting the processed

synchronous data flow into an output asynchronous data flow".

Examiner respectfully disagrees. As stated in the action above, Circenis

discloses at column 6, lines 50-56, wherein as stated earlier the system begins in the

synchronous mode and switches to the asynchronous mode. After which the process

continues in the asynchronous mode until complete (column 6, lines 57-59, Circenis).

Also, once the task has switched to asynchronous mode, it can only be characterized as

an output data flow because the times has stopped and the only way to complete the

task is in the last mode represented, which would be asynchronous mode (i.e. the flow

of the data is not at the same time). Therefore, still disclosing that the flow of the data is

switched along with the task.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Points of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chelcie Daye whose telephone number is 571-272-3891. The examiner can normally be reached on M-F, 7:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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August 23, 2006

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